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CO-OPERATIVE MARKETING

By W. H. Reid, Tennent, N. J.

Representing the Monmouth County Farmers' Exchange

EDITOR'S NOTE.—This paper was delivered at a recent meeting of The American Pomological Society. It is presented here by the courtesy of that society.

THE idea of forming an organization of farmers for the purpose of selling produce and purchasing supplies had been agitated at times in our County for a number of years, but nothing that produced practical results was done till about a year and a half ago. A few of the pioneers in this movement met informally, with the result that a committee of three was sent to Onley, Va. to gather information in regard to the workings of Eastern Shore Exchange. This committee on its return reported that this Exchange had not only been a boon to its members in securing increased returns for their *sweet* and *white* potatoes, but that it had also been a success in a business way; that its stock, par value \$5.00 per share, after eight years of business was worth \$12.00, and that the organization had a capital stock of \$40,000.00 and a surplus of \$50,000.00.

At a meeting of potato growers held after the return of this committee, steps were taken to form an organization to be known as the Monmouth County Farmers' Exchange; counsel was employed, incorporation papers were secured, and other necessary steps were taken to perfect the organization. After committees for soliciting stock had been appointed and had done their work the stockholders were called together and organized by choosing a Board of Directors consisting of all members, and were then asked to determine by vote whether they would choose

president, vice-president, etc., or whether they wished the Board to organize by choosing its own officers. The vote was in favor of selection by the Board. After the officers had been chosen the general manager, treasurer and other help necessary to conduct the office work had been appointed, a committee consisting of the general manager and one of the directors was sent to Onley,—the headquarters of the Eastern Shore Exchange, to study the methods of conducting the business, the form and style of books used, and to learn as much as possible from their experience. The committee was cordially received and given all possible assistance by the officers of the Virginia Exchange. Our General Manager on his return visited or corresponded with dealers wherever it seemed probable that we would do business. Arrangements were made with commission merchants of good and reputable standing in different cities to handle any goods that it might be deemed advisable to have sold on commission; so, that when the season opened, we had the situation fairly well in hand. Offices were erected at some nine or ten shipping stations, and telephones connecting with the head office were installed by the Hudson and Middlesex Telephone Co.

Loading agents were employed at each shipping station; compensation three cents per barrel or its equivalent in case of apples in baskets;

agent to employ and pay all help and report every night to head office.

We commenced business in a small way about July 10, '08, selling, on commission. The first sale and shipment in carload lots was made July 21, and the last sale December 2, but the bulk of the business was done by November 1.

We handled and sold for our members 203,039 packages,—principally barrels of potatoes and apples,—charging $7\frac{1}{2}$ cents per barrel when price did not exceed \$1.50 net per barrel and 10 cents per barrel when price was more than \$1.50. We sold potatoes as far north as New Hampshire, as far south as Virginia, as far west as Ohio, in 50 cities and to 121 customers. Our sales amounted to \$454,414.11. Lowest price \$1.45 per barrel, highest price \$2.50 per barrel. Potatoes were shipped partly in sacks and partly in bulk.

On July 30, our Manager had about 35 cars of potatoes on track and for sale. At that time potatoes were green, weather hot, and they had to be shipped to New York or other nearby points. He was well informed as to the market, and knew that under those conditions there was great danger of breaking the market. He told agents to request members to stop digging, shipped 22 cars and held 13 over, and on Saturday August 1 cleaned out what was left, 13 cars. It is my belief that our being organized and in a position to stop digging at this time, saved a crash in the market.

While this has been a season of short crops of potatoes and while the price would doubtless have been above the average, yet every potato grower in our section that I have heard express himself, (whether a member of our organization or not), believes that the Monmouth County Farmers' Exchange has caused him to receive from 25c to 40 c per barrel more for his potatoes than he would have received had there been no organization. It is our belief that a grower with 2,000 barrels of potatoes and the limit of stock \$100, has already

received 400% on his investment even if he should never realize one cent on his stock. Should we desire today to turn our resources into cash and clean up, we could pay a dividend of about 20%.

As was to be expected in our first year's business, we had our troubles and made our share of mistakes. This being something new some of our members lacked confidence, and being urged on by some of the local buyers, collected pay for potatoes as fast as they were delivered. We had about \$7,000 paid up capital stock,—used about \$3,000 for equipment, leaving only \$4,000 working capital. As it required about 10 days from date of shipment to get returns, and with shipments ranging from 10 to 30 cars per day, you will readily see, with members collecting as fast as they delivered potatoes, our funds were quickly exhausted. We resolved that no member should leave the office without his pay or have to ask a second time for it. The Directors came to the rescue and financed the business by giving their notes personally endorsed. We had a number of losses on account of improper grading or sorting by some of our members, and also from what the trade calls "sun-pricked" potatoes, caused by digging too far ahead in hot weather and allowing them to lie too long in the sun. Had it not been for losses from these two sources, we believe the business would have paid fully 100% on investment.

We furnished our members with about \$35,000 worth of seed potatoes from New York State and from Maine.

We have ordered to date 559 tons of chemicals for home-mixing and about 300 tons ready mixed fertilizers.

In looking over the net result of the first year's work of the Exchange, we feel that, notwithstanding our mistakes, drawbacks and losses, our receipts have been increased fully 12%, and that we have gained the confidence of the majority of our members. We also feel that our worst and hardest year is over, and that with our

experience and increased capital we will be able to forge ahead and get better results each year.

The Eastern Shore Exchange has just closed its ninth year, having handled about 1,200,000 barrels of sweet and Irish potatoes, and having done a business amounting to about \$2,400,000. It has declared a divi-

dend to its stockholders, and added about \$19,000 to its surplus, making a surplus of about \$70,000. In comparing its first year with our first year, we find that they did a business amounting to about \$400,000 as compared with about \$450,000 done by us. We now have 525 members and \$30,000 paid up capital.



"The Old and the New," as seen on the public market of our large cities. The one representing the seller, the other the buyer, tells the story of the city man's demand for fresh farm produce.

THE GRANGE AS A FACTOR IN CO-OPERATION

By W. N. Giles

Secretary New York State Grange

FROM the "Declaration of Purposes of the Grange" we quote:

"We propose meeting together, talking together, working together, buying together, selling together, and in general acting together, for our mutual protection and advancement.

BUSINESS RELATIONS

"For our business interests we desire to bring producers and consumers, farmers and manufacturers into the most direct and friendly relations possible. Hence, we must dispense with a surplus of middlemen; not that we are unfriendly to them but we do not need them; their surplus and their exactions diminish our profits.

We wage no aggressive warfare against any other interests whatever, on the contrary, all our acts and all our efforts, so far as business is concerned are not only for the benefit of the pro-

ducer and consumer, but also for all other interests that tend to bring these two parties into speedy and economical contact."

By this quotation it will be seen that the original idea of the Grange founders designed to make business co-operation a fundamental principle, and it has done so to a large extent; that it is not more generally known, is because it has gone about its work in a quiet and unobtrusive way without great noise or great publicity, but that it has done much, very much, is an established fact. A standing committee of the State Grange is now tabulating some facts and gathering some data that will astonish many people when they learn of the magnitude of co-operative buying and selling within the Grange. We will not anticipate that committee's report but can safely say that co-operative trade

amounts to hundreds of thousands of dollars in this state alone and millions in the nation, and what it has done is only a harbinger of what it might do.

As stated in the beginning, with no war against the middleman, yet where a Grange has learned to do with fewer of them or with none at all, it has resulted in a very great saving to them and this has been done and is being done to a great extent.

As our farming becomes less diversified and more specialized, farmers are now extensive buyers from *farmers* and it needs no argument to prove that it is a useless waste to make their exchanges through middlemen when direct exchanges can be effected. These direct exchanges are being made between counties and states, and many Granges are consolidating their produce into jobbing quantities and selling direct, and many more are consolidating their orders for the grosser products and buying in quantities that insure substantial reductions in the cost to the purchasers.

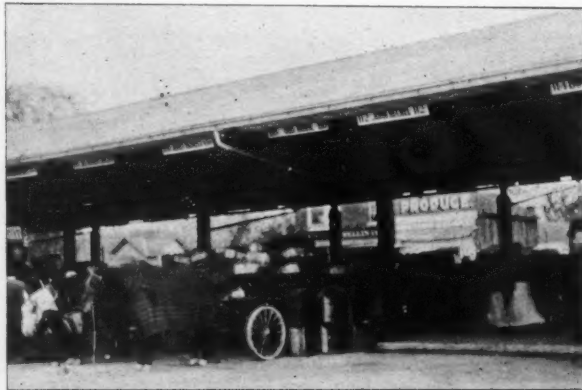
Successful co-operation requires an organization composed of those of indetical interest; this the Grange is and has proven and is proving an important factor in the working out of a highly beneficial and much needed enterprise.

As a factor in successful co-operation, the Grange has much yet to learn: Its

members must first be expert judges of their products, then grade and sell them upon merit; a careless bunching of all the hay or other products of various qualities into a car and calling it hay, and a pro rata division per ton will not result in satisfaction, nor furnish an incentive to produce the best, but a careful grading as to quality will insure the best results and encourage individual effort to produce only the best.

The Grange has been an important factor in this movement, as it has sown the seeds and developed the plan. There are today many different organizations that are selling their products co-operatively to their great advantage but most or all of them were developed by the Grange, or by individuals who obtained their inspiration and original ideas from the Grange. The Grange worked out and carried to a successful issue co-operative fire insurance, and while many other organizations have sprung up and are enjoying the benefits of co-operative insurance who do not owe any allegiance to the Grange, yet the Grange idea made it.

So with co-operative selling of farm products, which is now quite successfully carried on, and which promises great advantages to the producer and consumer alike; the Grange has been and is likely to continue an important factor.



A city's interest (?) in the transfer of country produce from grower to consumer. Note well developed system of renting stands, bringing funds to city treasury. Note also attractive roof which protects buyers at the expense of farmers' horses. This city charges to allow horses to stand here, but imposes a fine in winter if horses are found standing elsewhere.

THE HOOD RIVER APPLE GROWERS' UNION

By C. C. Vincent

Formerly Assistant Horticulturist, Oregon Agricultural College; now taking Graduate work in this College

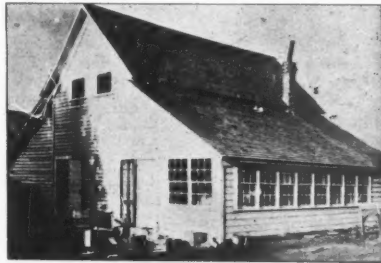
ONE of the greatest problems confronting the individual orchardist is the successful marketing of his fruit. Many growers can produce fancy fruit but to sell it is another proposition. The single grower unless engaged in the business on a tremendous scale is at a great disadvantage.

The question naturally arises: How then is he going to alleviate this congested condition? The answer is simple enough; by the formation of co-operative unions or associations.

The handling and marketing of fruit were serious problems confronting the growers of the Hood River Valley a few years ago. They realized that horticulture was an art of the highest order; and that the orchardist must keep abreast of the times, if he aimed to cope successfully with the world at large. The result was an organization; one that was not perfected all at once, but by a slow, sure growth.

To show what this association has accomplished during the few brief years of its existence I will present the following figures: the Hood River fruit growers in 1902 realized, as individuals, only 85 cents per box from the sale of their Spitzenburgs. In 1903 the Hood River Apple Growers' Union was organized and as a result succeeded in marketing the fruit for \$2 per box. Nor did they stop at that; the good work went on, for in 1904, \$2.10 per box was realized, and in 1905, the fruit sold for \$2.60 per box. Now, Oregon fruit is known the world over, having obtained recently a very strong hold in the European markets. The grower has reached the era of scientific management and development of his orchard, can produce fruit of the highest type and order, and through the union receives remunerative prices for his product.

Specialism is a hobby with the growers of the Hood River Valley. They realized that to achieve the greatest financial success they should have a specialty. Let us see if they have accomplished their aim. At the present time, only two varieties of apples, the Spitzenburg and Yellow Newton, are produced in quantity, and only one variety of strawberries, the Clark Seedling. Undoubtedly, success has crowned the efforts of these men.

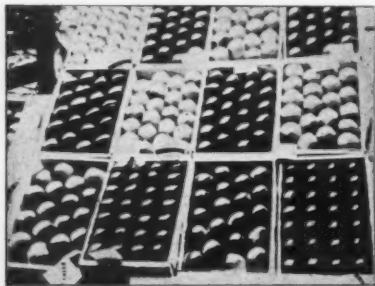


A HOOD RIVER VALLEY PACKING HOUSE.

The question might arise: How did the Hood River Apple Growers' Union push to the front, gain such prominence, and achieve such great fame over its contemporaries? Several factors were brought to bear in the working out of this problem. Hood River had won the distinction of being able to produce an article of quality and the growers had one of the greatest of organizers, Mr. E. H. Shepard, as manager of their Union. This man was a thorough orchardist; understood how to put up fruit in fancy boxes for long shipments; was posted on the demand and prices of every market, and was familiar with practically every fruit locality in the United States. The success of any organization depends largely upon its manager, who must be a man of recognized ability, and one who is

honest and fearless in his dealings with his fellow men.

The valley is blessed with having about ninety college men in its midst. These men are in the practical work, applying the scientific principles of fruit growing, as acquired during their college career. We find Harvard men, Stanford men, Yale men, Chicago University men, Cornell men, etc. all striving for the same end; the production of the large red apple and the upbuilding of their community.



SOME HOOD RIVER APPLES IN STANDARD BOXES.

Do we now wonder that the Union has made such wonderful progress? Any community supported by such a body of men, as we find there is bound to grow and prosper.

The Union has been instrumental in holding biennial fruit fairs. These fairs have been notable events, for their exhibits have attracted world-wide attention and have stimulated rivalry and interest among the growers themselves. They have also been instrumental in drawing buyers to the valley, who buy the fruit, ship it east, and exhibit it for two or three days in some of the larger cities. This is one of their principal means of advertising.

It may be of interest to many readers to give an insight to the workings of such an organization. In the first place the methods are very simple. All fruit packed by the Union is put up by expert packers under their employ, no individual grower, who is a member of this association, being allowed to pack

his own fruit. The enforcement of this rule has resulted in putting up a package that is absolutely uniform in every respect. The apples are wrapped in paper, bearing an attractive cut of Mt. Hood and the name of the association, and then placed in the standard or special box.

The grower not having enough fruit to justify a crew of packers, brings his fruit to the Union's warehouse, and receives in exchange for his product a slip in the form of a receipt. A duplicate of this receipt is retained in the office and is entered on the debit side of the ledger. After the fruit is loaded into the car it is checked up and placed on the credit side. At the end of the season, when the returns have come in, each grower is paid his requisite amount less the commission paid the Association.

With the large grower the method is somewhat different. His fruit is picked in orchard boxes, taken to his business house, sorted and then packed, as stated previously, by packers hired by the Association. Many different styles of packing houses are in vogue throughout the valley, varying from tents to wooden



ANOTHER TYPE OF HOOD RIVER VALLEY PACKING HOUSE.

structures. One of the prerequisites in the construction of such houses is plenty of light. From the photographs accompanying this article, a fairly good idea can be had as to the different types of houses used by the growers of this valley.

To the small grower the Union is a necessity because it enables him to combine his produce with that of

other growers to make up car lots. The Union can do a business on a wholesale basis, while the individual can do only a small retail business, or ship his fruit on consignment. Buyers prefer to deal through unions and are willing to pay better prices because they are sure of a uniform pack, and because they feel that the Association will do business on straight business principles.

While the advantages of a Union are very obvious and it may be superfluous to mention them, yet it might be well to enumerate a few to show what it has accomplished over the individual:

1. The Union is in a position to receive daily quotations from all the markets of the world.

2. It has the power to change the destination of a car enroute, in case of a glutted market.

3. It can handle the problems of shipping and storing more cheaply than an individual.

4. Icing of cars can be given individual attention.

5. The Union has saved thousands of dollars for its members in buying spray material, paper, boxes, etc. in carload lots.

6. It can do extensive advertising.

All these things an association can do, with comparatively little cost to its members while to an individual, these same things would be impossible.

Thus, we see that the Hood River Apple Growers' Union is a splendid example of what can be accomplished by systematic and thorough work and it would be well for other fruit growing sections of the United States to emulate the work of these people. What Hood River has done can be accomplished in other sections by perseverance and systematic work.

CO-OPERATION IN MARKETING POULTRY PRODUCTS

By George Frost

President, Central New York Egg and Poultry Shippers' Association

CO-OPERATION as a means of selling their produce is a subject which has, up to the present time, received very little consideration from farmers, poultry keepers and others in a similar line of business. What has been accomplished in other lines of business, such as the dairy industry, should also be possible with the poultry industry.

I have been requested to outline what meed of success has attended the Central New York Egg and Poultry Shippers' Association, which was formed about twelve months ago by a number of poultry keepers at Auburn, N. Y. We were dissatisfied with prices received from the various commission merchants, and conceived the idea that by combining our shipments and engaging our own salesman, we could obtain for ourselves the profits received by the

commission merchant. After various meetings we decided to commence business February 1st, 1909.

Our returns the first week gave us a shock, the prices realized being about as low as the ruling price on Western firs. We found that we had to contend with lack of capital and the same difficulties which attend the beginning of practically every business enterprise, as well as to allow for credits to the better class trade and hotels, which expect a considerable reduction for cash. We had inserted a clause in the rules, allowing any member to fulfil existing contracts and certain members took advantage of this to resurrect old customers with whom they had refused to make contracts, pending the first shipment to the Association. Certain others discontinued shipments at various times during the Spring, but in May

and June some of the members recommenced shipping on discovering that Association prices were better than those being paid by the commission merchants. These shipments we were only too pleased to receive to help defray expenses, although we have a rule imposing a fine and probable expulsion for members shipping elsewhere.

During September the shipments were about the same as received during April and May in spite of the natural decrease in production, but at the present moment we are not receiving quite sufficient eggs to fill orders. What the winter will bring forth is hard to foresee but we hope to start the next season with renewed courage and a large increase in membership.

The purposes of this Association are such as should recommend it to any farmer keeping over 100 hens,

because by means of it, he would be able to realize just as good a price for his eggs, when properly cared for, as that received by the regular poultry keeper.

The principal difficulty we are having to contend with is lack of necessary capital, for supplying funds to enable us to give 30 days' credit or more as required by most of the principal New York hotels, etc. If each member would contribute a fixed sum for every one hundred head of laying stock he keeps, we should have a sinking fund which would increase with the membership and by virtue of which we could give credit to those customers having a good rating.

The officers of this Association do not receive any salary; nor is it possible for the members to be liable for any debt, new arrangements having been made with our manager, which obviate any debt occurring.

FORTY YEARS AGO

By Nixon Waterman

I wandered to the college, Tom, where
you and I were mates
And crammed our heads with learning till
we nearly split our pates.
The tutors thought that quite the thing in
those old times, but, oh!
They don't do now the way they did some
forty years ago.

I sought the lonely campus, Tom, and
asked a cripple, "Where
Are all the students?"—"Well," says he,
"they're scattered here and there;
The ball nine's in Chicago, and the crews
are off to row."—
We couldn't get away like that some forty
years ago.

"The tennis team," continued he, "is doing
Brown to-day;
Our golfers are at Princeton, and the glee
club, too, 's away;
Our gun club and our archery team are
laying Harvard low."—
We missed a lot of fun, dear Tom, some
forty years ago.

Things may be better now, dear Tom, than
in those days of yore,
When every fellow had to get of bookish
stuff a store;
I hope the boys are happy now, but this
one truth I know,
I wish we could relive those days of forty
years ago.

—*Saturday Evening Post.*

"Our football men are in New York ar-
ranging dates," said he,
"For this year's games." And then he
sighed: "I'm here at home, you see,
Because my back and legs are broke—
rough-housed me, don't you know?"
We didn't have such sport, dear Tom,
some forty years ago.

I said to him: "Well, anyhow, the faculty
is here?"
"You're wrong," says he, "they've gone
along to help the rooters cheer;
But you might find the janitor." I said to
him, "Oh, no!"
And hurried from those scenes, dear Tom,
of forty years ago.

In those old days of grind, dear Tom, our
tutors were perverse;
Although we'd telegraph ourselves: "Come
home; your mother's worse!"
The sly old "profs" would wink a wink
which meant it wasn't so,
And keep us grubbing in the books some
forty years ago.

THE PRODUCE COMMISSION MERCHANT

By A. D. Gail

President, National League of Commission Merchants.

WHAT are the functions of the produce commission merchant and his relations to the grower and shipper of products of the farm and orchard? This is a question that is often heard but too seldom not fully or fairly answered.

The commission merchant is the selling agent of the producer; the commissary of the retailer, and acting in this capacity, disposes of the farmer's products and secures for the retail merchant supplies for his trade. Those, lacking full knowledge of the conditions surrounding the marketing of produce, may inquire why it is not possible for the grower and the retailer to deal direct without a middle-man.

Such a plan has been here and there put to test with the result, that it has been shown more feasible in theory than in practice. To make obvious the reasons, therefore, it is necessary to point out that of all the vast producing territory of this country, no one section can furnish its products, of whatever kind, for more than a very few of the twelve months in the year; whereas for economic reasons, the produce merchant, in any market, must, all seasons of the year, keep supplies from numerous sections, as available, to meet the many varying requirements of an ever increasing consuming populace.

To conduct direct sale of their products to the retailers would require that the growers of a locality, individually or collectively, establish, in accessible markets, headquarters for the display and disposition of their goods during the short period of the year, they would be available. That such items as rent, equipment, insurance, license, labor, etc., including the accommodations for cold storage for some commodities and accessories for heating and ripening others, (were these facilities obtainable for short periods), would be profitlessly

burdensome in expense, must be manifest. Moreover, the science of farming is quite unlike the art of selling and an adept in one rarely qualifies in the other.

The commission merchant must not only be a skilled trader, but must systematically build up outlets for his receipts and keep well informed on transportation matters (about which often too little is known by the producer). Whereupon, comes the necessity for the grower, availing himself of the facilities and equipment of the established commission merchant to best serve the interests of the shipper and his own.

To earn a livelihood and maintain profitably his establishment throughout the year, to keep his crops of trained assistants and other help intact and engaged, the produce merchant must procure his shipments successively as the season advances, beginning in the extreme south in the early winter and ending at the most northern border of the Union in the fall.

The successful commission merchant is he, who can acquire and retain a substantial local and out of town trade by having available at all times, supplies of seasonable products to meet the demand of ordinary and epicurean appetites. In doing this, he so regulates his receipts of perishables, as not to incur loss through an over-supply subject to deterioration.

In the fruit and produce line, the matter of meeting conditions of supply and demand is probably the most vexatious problem to contend with. Careful study of the market conditions and co-operation between shippers and receivers tend greatly to reduce the hazard of shipping to overstocked consuming centers. The market man is the best adviser of the producer as to opportune shipping periods.

During unfavorable marketing spells, the merchant will often direct the movement of produce to other than his own receiving center and avoid unprofitable returns to the shipper of commodities that cannot be withheld.

The desirable selling agent must necessarily possess a reputation for reliability and responsibility. To promote the interests of such mer-

chants and incidentally protect the producers in their marketing, the National League of Commission Merchants was established and has existed for seventeen years. With a present membership in practically all of the important receiving and distributing markets, that organization probably has done more to encourage and up-build the perishable food industry than any other element.

DEER HUNTING IN THE ADIRONDACKS

By F. B. Kelley, '10

THE annual pilgrimage of deer-hunters is now on. The hunting season allowed, by the laws of this state, starts the sixteenth of September and continues until November first for all kinds of deer, and until November sixteenth for the male deer only. During this period of time, thousands of men are drawn from every occupation of life to the extensive forest and waste land in the northern part of our state, the Adirondack region.



THE CAMP. LOOKS INVITING DOESN'T IT?

We are most of us familiar with the so-called "camp life," but how many have enjoyed the pleasures of two weeks in a log cabin. Camp life, to most people, means a few weeks or perhaps all summer in a cozy little cottage at some lake resort, where

the hum of motor-boats, the wail of the merry-go-round pipe organ, and the cry of the ice-cream-cone man, fills the air in the day, while the inciting music of the string orchestra occupies the evening. Compare this with two weeks in the woods, where your nearest neighbors are at the next camp, a couple of miles away across the river. Where the hum of motor boats, and the wail of the organ, give way to the roar of the water going over Biscuit Falls and the sighing of the wind thru the trees,—sweeter music never is heard. Here the musicians never tire, day and night they play on and on thru all the changes of season; and if at night you step outside of your cabin door, you may hear the great northern owl calling off the sets and the red fox barking for an encore. "Lonesome and weird," did you say? No indeed, for on the contrary it is restful and peaceful, and is conducive to a complete relaxation of thoughts about outside work.

The daily schedule of camp life at Mantle's camp on the Oswegatchie river is something like this.—At five in the morning, you will in a vague sort of way, become aware that someone is trying to awaken you. You wonder what the trouble is, why anyone should wake you up when you had just gone to sleep. But an unmistakable odor of baked potatoes, fried venison, buckwheat cakes and coffee brings to your dormant senses



30,000 CORDS OF PULP WOOD IN THIS
JAM OF SPRUCE TIMBER.

a feeling that that region where the stomach is supposed to be, is occupied by a great vacancy. To get out of bed, wash, and get to the table, takes less time than is spent by the engineer making an eight o'clock, incredible though it seems. The inner man satisfied, big shoes or leggings are donned with enough coats and sweaters to keep out Jack Frost,—and the party is out for the hunt. Every hunter in the camp carries with him, a couple of sandwiches, matches, plenty of ammunition, a knife and most important of all his compass.

There are two methods of hunting the deer, both successful, but one requires a better knowledge of the country than the other, and is better adapted to the born woodsmen of that region. This method is known as "sneak-hunting." The other method and the one almost entirely used by the parties of outside hunters, like our camp, is called "driving." Driving requires the whole party while sneak-hunting means that each man goes alone.

To sneak-hunt successfully, one must be an expert at walking thru

the woods absolutely noiselessly (and consequently slowly), watching ahead all the time with an eye that must be as alert as that of the deer itself. One must work silently to the top of a ridge, and scan the valley below him in search of a feeding deer. The average hunter who goes into the woods cannot do this; he steps on a twig that breaks with a sharp crack, and any deer within a quarter of a mile is instantly on guard, and is generally away long before the hunter sees him; or it may wait until sure of the source of the noise, in which case, the hunter will get a glimpse of a dull brown body and the decisive wigway of a white flag disappearing over the next ridge.

To drive does not require so much caution or knowledge of woodcraft. The party will split up, leaving two "drivers" at the camp and the rest of the party will go up the trail from camp about a mile and a half to the run-ways covering the first drive. Here they sit down, each man taking a separate position where he can cover the most ground, and in this fashion, perhaps four watchers may cover a half mile of territory with their respective ranges of eye and rifle. Some think that a deer runway is a well defined path where the deer pass through the woods, but in reality it is a place where the deer are known to pass when alarmed; for example, off the end of a long ridge, or up a valley between two lines of hills, or perhaps through a deep canyon connecting two valleys. The two drivers left at camp remain there until the watchers have had ample time to get settled on their runways, and then they start in a round-about way from camp, over hills and through valleys in the direction of the watchers. Separating, they keep within shouting distance of each other; and keeping abreast they go through the woods, barking like dogs, shooting their guns at marks or at partridge in case either of them carries a shot gun. Of course the deer, if any are between the drivers and the watchers,



200 LBS. OF JUICY VENISON.

are alarmed and run away from the noise, and *may* pass by a watcher whose duty it is to shoot.

Seems easy doesn't it? and very simple, almost brutal in its simplicity. The writer has been asked several times, how he could shoot an innocent deer in such fashion. But to use the words of our guide "there are

more holes in the air for the bullet than there are in deer." A tree, a twig, almost anything will deflect the bullet from the right direction and the deer passes unharmed. Just to prove that the so-called "annual slaughter" of the deer is a myth, I may say that four hunters out of every five fail to get a deer. And in spite of the fact that numbers are shot, the deer are more plentiful today than they were six years ago when we first went hunting. A deer has ears and a nose which seem to tell him instinctively where danger lurks; he may double back around a ridge to the rear of the drivers, and I have known them to hide in a thicket until the driver is passed and then jump out and be away before the driver has time to turn about and send a poorly directed shot after them.

It would be a poor vacation indeed, if the pleasure gained consisted of getting a deer each time we went. It is the wholesomeness of the air; the freedom of the woods that allows you to dress as you please, to sleep soundly, to cook your own meals, to shave when you want to, and in fact to do as you please, that makes the trip full of good times and pleasures long to be remembered.

CARE OF THE EYES

[CONTINUED]

By George M. Gould, M.D.

V. GRANULAR LIDS

MOST people think that the tiny white scales clinging to the edges of the eyelids should be called "granular lids." But the little scales are usually not dangerous, and are easily made to disappear by application of the "Ointment for the Eyes" described in the last number. True granular lids is a very different thing; it is dangerous, and most difficult to cure.

The greatest difficulty arises in deciding whether the true disease, granular lids, exists; whether it is the beginning stage of the genuine disease; or whether it is only a condition

simulating it and the result of eye strain. I shall describe, later in the series, what is meant by eye-strain. For the present, eye-strain may be defined as the need of spectacles.

When a well-developed kind of true granular lid exists, any one able to turn the upper lid inside out can make sure of it. At least one member of every family should learn to turn the lid, as I have described in a previous article. In the natural healthy eye the inside of the lid is flat, smooth, pinkish in color, and in winking will slide without friction

over the eyeball. If real "granular lids" is present, the inside of the lid will be red and rough, and with little granular elevations, like sago-grains or like the roughness of a nutmeg grater. These produce friction by chafing or rubbing against the globe of the eye in winking, and they inflame the cornea and the conjunctiva, or skin, of the eyeball. If the inside of the lid is red and like coarse velvet—rather than pimply or granular—the difficulty is not true "granular lids," and long persistent use of the ointment and of the borozinc eye lotion may cure it. If the sago-grains or sponge-like elevations of true granular lids exist, only long and

expert treatment by a physician can probably save from blindness.

But if the corners of the lid—that is, the parts toward the nose and toward the temple, are red, slightly pimply, or roughened while the center of the turned lid is smooth and pink, then the danger is not great; and home treatment will usually cure it. But to the home treatment must be added scientific spectacles, for the lack of spectacles is the chief cause of the lid trouble. The home treatment consists in the use of the borozinc lotion two or three times a day until the lids are found entirely smooth, pinkish, and healthy.

VI. INFECTIOUS DISEASES OF THE EYES

In some cases of red or inflamed eyes the redness may be simply the sign of worse to come, the beginning of a disease that if not stopped will destroy the eyes. The same or a similar purulent or infectious disease as that of the newborn infant may arise in older children or in grown-ups. The two chief signs of this infectious, poisonous, or purulent conjunctivitis, are swelling of the lids and a discharge from the eyes thicker and more colored than the tears. When these things exist there is great danger. It is comparatively useless to inquire what kind of poison has got into the eyes, or whence it came. The all-important thing is to fight it, fight quickly, persistently, and intelligently. Of course, the fight is best made and safely carried on by a good physician. The great mistake commonly made is that nothing is done until it is too late; the help that might be given before it is possible to go to the doctor is not rendered. Sometimes it is next to impossible to consult the doctor at all.

In all such cases there is one simple way either of preventing fatal consequences or of checking the rapid course of the disease until more expert help can be obtained. Sometimes this way may prove effective and the eyes may recover without calling in the far-away physician. Freshly

boiled water is pure, and everybody may have it; moreover with good common sense almost any one can learn how to cleanse an infected eye without doing any damage. All that is needed is a common little medicine dropper with the little rubber bulb at one end; the nozzle-end should be small, blunt, and smooth. The task is thoroughly to irrigate the eyes beneath the lids with warm freshly boiled water. Insert the point of the dropper gently, and a little way beneath the lids, and squirt the water sharply and freely and lots of times, especially beneath the upper lid. By grasping the skin of the lid between the thumb and finger of the free hand the lid may be drawn away from the eyeball, and thus the water be made to penetrate all parts of the pocket made by the lid and eyeball. This manœuvre should be repeated every hour as long as any puslike discharge comes from the eye. Every good housewife should have in the house (well-locked away from the children) some bichloride tablets that, according to the directions given, may be thrown into warm water, making a solution of any strength required. For washing a sore, a cut, or a hurt of the hand or foot, a 1 to 3000 solution may be used. For washing out infected eyes a 1 to 5000 solution is generally strong enough. So weak

and comparatively harmless a solution of the bichloride will usually be effective in checking or in curing the diseases of the eyes.

Again the caution is necessary that

the infectious discharge must be kept from other eyes. Hands must be scrubbed, dropper and dishes cleansed in hot water, towels boiled immediately after use, etc.

VII. INFLAMMATIONS AND ULCERS OF THE CORNEA, ETC.

In the great majority of cases those that are blind became so from ulcer of the cornea, usually during babyhood, as has been explained in the first article of this series. Occasionally the inflammation and ulcer of the cornea occur at any time after babyhood. These troubles are caused by infectious disease of the conjunctiva (see the last article), by bunglesome attempts to scrape or pick specks off the cornea, etc. Thus is formed an ulcer of the cornea—that is, a tiny open sore or whitish spot interfering with its transparency. The eye and the cornea may get well; that is, the redness of the eye, soreness, pain, etc. disappear; but the whitish scar remains, causing partial or complete blindness. The aim of all care and treatment in these diseases is to prevent this opaque scar or spot from forming on the cornea. If a good physician cannot be reached, blindness is either possible, probable, or certain. The fight against this disaster should be carried on by methods described in the last articles of this series. The "ointment for the eyes" should also be used twice a day, inserting a tiny bit between the lids and upon the eyeball.

IRITIS

In adults a large proportion of the cases of injured vision or partial blindness is due to inflammation of the iris, or "window curtain," of the eye. This structure has the same use as the diaphragm of your kodak; it helps to form a clear picture of outside objects on the retina. The pupil is a round hole in it. The iris is contracted by light and expanded by shade and darkness. Nobody, not even the best doctors, can tell in the beginning of inflammation of the iris whether the iris or some other part of the eye is to suffer most. Among the

symptoms in iritis are pain in the eyeball, brow, or temple—worse at night than in the daytime; the eye is tender and is hurt by bright light, by attempts to read, etc. The white of the eye around the cornea may become red. When the disease is more pronounced it is easy to see whether or not the iris is inflamed, because it looks discolored; moreover the iris will neither contract nor expand when light is thrown on it or when darkened. When the pupil is thus stationary it is because it has by inflammation been glued down to the lens on which in health it touches and moves. In this condition it may often be seen by careful looking that the borders or edges of the pupil are irregular, looped, or with tags. When this is so and if the eye is sensitive, painful, or red, there is the greatest need of prompt action to save vision. The chief and absolutely necessary treatment of iritis—by the physician if possible, by yourself if a physician is not possible—is almost entirely by means of

Atropine Drops

Sulfate of Atropine	gr. iv
Distilled Water	oz. i

One drop of this solution should be dropped into the eye every hour or two until the pupil widens broadly and uniformly. After that the atropine drops need not be used more than once a day. But they must be continued for six weeks. The eye may be protected from light by "London smoke" flat or plano spectacles.

GLAUCOMA

This is one of the most ruinous of diseases of the eyes, but luckily it is not very common. Usually it is chiefly, though indirectly, caused by lack of spectacles rightly correcting astigmatism and eyestrain. The es-

sential thing about the disease is over-tension or hardness of the eyeball because of prevention of outflow of the fluids of the eye. The eyeball may be likened to a small rubber ball well-filled with water: if more water were being forced into it than could pass

out, the ball would become hard. This extreme hardness of the eyeball destroys nerve-action and the health of other parts—kills the eye, in fact. This disease can scarcely be recognized or treated by any one except an expert physician.

VIII. THE "ACCOMMODATION" AND "PRESBYOPIA"

There is a little mechanism within the eyeball, called the *crystalline lens*, which has a great deal to do not only with our happiness during all our life, but which is necessary for our daily work, efficiency, and health. Its name tells us that it is much like a little piece of glass, similar to the glass lens of your kodak or spyglass. It has much the same use and action as the kodak lens, but instead of moving it back and forth as you do the kodak lens to make a better defined picture on the film, the lens of the eye has the power of becoming thicker or thinner; in this way the picture on the retina (the sensitive film or plate of the eye) is kept sharp and clear regardless of whether the object looked at is far or near. This power of thickening or thinning the crystalline lens is called *the function of accommodation*. This thickening or thinning of the lens is brought about by a little ring-like muscle surrounding the lens and controlling its elasticity. In babies the lens is very elastic and enables the child to see objects two or three inches from the eyes. The elasticity decreases or lessens steadily throughout life so that at about forty years of age one cannot see a small object with ease and clearness at less than about ten, twelve, or fourteen inches from the eyes. Hence it is that at about forty-five years of age almost everybody needs spectacles (lenses outside of the eyeball) to make them see to read, write, and sew. These outside lenses make up for the lost power of "accommodation" due to the lessened elasticity of the lenses within the eyeballs. This power of the accommodation continues to lessen from forty-five on, so that stronger and stronger spectacle lenses are required about every two years. This weakening of the accommodation from about forty-five on to the end of life is called

presbyopia, and during this time a person so handicapped is called a "presbyope." It is a most costly and foolish pride which many old people have in reading without good spectacles. If the presbyopic spectacles are not changed every two or three years for higher power lenses, the reading, writing, sewing, etc., becomes more difficult and hurtful both to the eyes and to the general health. This is because the paper, book, needle, etc., have to be held too far from the eye, and the farther, beyond fourteen inches, they are held, the more minute is the picture on the retina; a too small retinal picture wearies and hurts the retina and the brain, and injures the general health, producing inability to do the work, headaches, indigestion, nervous troubles, and many other bad symptoms.

The kind of presbyopic spectacles first of all, depends upon whether there was any astigmatism present in the eyes before and during presbyopia; and there is always more or less of such *astigmatism* in all eyes; so that presbyopic lenses should also be *astigmatic* lenses. If, therefore, anyone sells you or orders for you, spectacles without the astigmatic correction, you may be pretty sure you are being cheated, and are not getting correct ones. Then the two eyes are most rarely alike, so if your spectacles have exactly the same power lenses in both sides, they are not correct. It is usually impossible up to over fifty years of age to determine exactly the astigmatism, and the difference between the two eyes ("anisometropia"), except by the use of a mydriatic, called "poison drops," and hence anyone, optician or doctor who sells you glasses or orders them for your eyes without using beforehand such "poison drops" is not giving you correct or harmless spectacles.

THE NEW GREENHOUSES AND FORCING PLANT

By W. G. Stephenson, '11

THE frame work of sash, pipes and concrete walls now indenting the surface of the sandy slope east of the college are to become in time the new greenhouses and forcing plant. They will be a most welcome addition to the fast growing equipment of the college and will add much to the hitherto unsightly ground between the filtration plant and the dairy building.

In the main the entire plant will consist of a head house and adjoining corridor to which will be connected seven glass houses. The two largest of these are connected, one directly and the other by a glass corridor, to the main or large head house and the remaining five, four of which are to be built now, are attached by their gable ends to a corridor which is an east and west continuation of the main head house and one story high. The main head house will be two stories and basement built of terracotta brick with concrete foundation 30 feet wide and 70 feet long, roofed with Paroid roofing. The basement will house the heating plant which is steam of the most improved type. The ground floor will be divided into an office, seed room, potting room and laboratory. The top floor is to remain unfinished for the present, but is intended for the use of the Lazy Club as a club room, as well as quarters for the gardener and some space is to be reserved for photographic dark rooms.

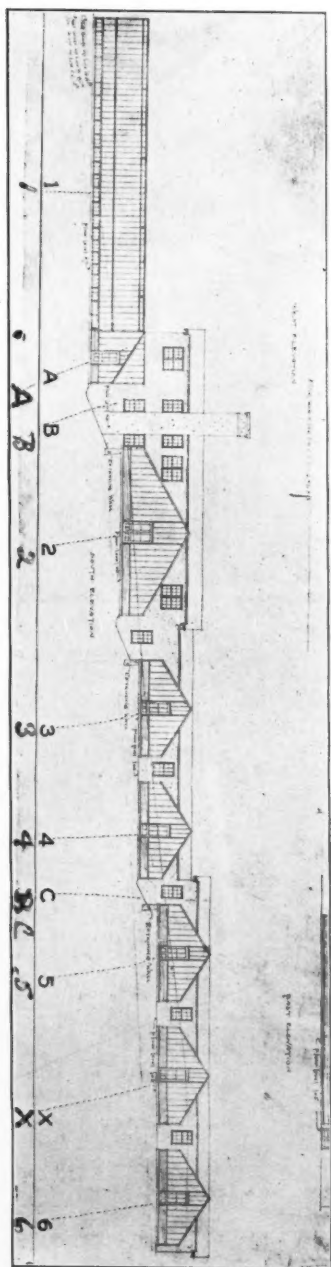
The corridor running east and west up the slope from the east end of the head house 150 feet is 20 feet wide and of the same construction as the head house proper but only one story. It will connect with the gable ends of the five smaller glass houses which are placed on terraces the one farthest east being the highest. All five are 23 feet 4 inches wide and 50 feet long spaced 6 feet apart. They are of

semi-iron construction of standard type with iron eave-plates; the roof being supported by pipe purlin and supports and the walls held by iron piping; all pipes entering ground being set in concrete. The ventilators are of patent type with self oiling gears.

The two large houses numbered one and two in the diagram differ materially from the others in construction besides being much larger. House No. 1 is 30 feet wide and 75 feet long and is the only house running east and west. It is spaced 3 feet 10 inches from the head house B and connected with it by a north and south glass corridor A 12 feet wide and 33 feet 10 inches long. The corridor and house as well as house Number 2 are of the iron frame type. They are so constructed that the weight of the heavy glass roof is borne by flat iron rafters 3 inches by $\frac{1}{2}$ inch which occur every 8 feet 4 inches. This makes possible a lighter wooden sash admitting more sunlight and making a rigid roof well adapted to withstand the severe winds it is exposed to, no wind-break being provided. This type of construction, while the best, was too expensive to allow its use in building all the houses, it being deemed not necessary in the narrower buildings. House Number 2 is as before stated built with this same iron frame and is 40 feet wide by 50 feet long running north and south and joining directly to the head house B by a door.

In all there are approximately 93,000 square feet of space covered by glass as compared with 53,000 square feet in the old forcing houses. The plans call for wooden top benches with iron pipe frames set in concrete; piping for steam heat and various other equipment.

The Department of Horticulture is to occupy the head house B, corridor A, and forcing houses 1 and 2. The



Department of Plant Breeding is allotted the house numbered 3, and the Department of Soil Technology the one next to it, number 4. House number 5 will be used jointly by the Departments of Plant Pathology and Farm Management. The house indicated by x will not be built until a little later.

Had the appropriation proved sufficient a more extensive system of houses had been planned and possibly another group been built north of the present new colony where the two old houses now stand. These would be devoted to investigation and research work leaving the other group for the purposes of instruction alone. The amount asked for by the college was \$50,000. \$30,000 was appropriated \$3,000 of which was used in building

the new insectary on the roof of the Auditorium.

The Department of Horticulture plan many new experiments in their new quarters for the coming year. Extensive experiments will be carried out in regard to the effect of some of the newer lights for forcing plants in winter, as the Tungsten electric and Acetylene gas. More work will be done on the etherizing of plants for winter forcing and elaborate experiments are planned on the fertilization of roses. Besides these and many others considerable attention will be given to growing of winter flowering sweet peas.

Driscoll Bros. of Ithaca have the contract and the greenhouses are from the shops of the Lord & Burnham, Co., Irvington, N. Y.

THE TRIP TO MILWAUKEE

By R. E. Deuel, '10

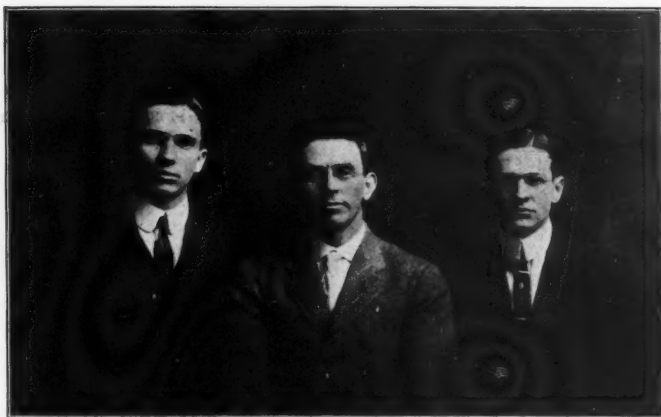
THE Cornell Stock Judging team accompanied by Prof. H. H. Wing, who had carefully coached them, arrived in Milwaukee on the 14th of October where the National Dairy Show was being held from October 14th-24th inclusive.

We arrived a little before noon and proceeded at once to the large Auditorium in which the Show was being held. We gained admittance to the building without much difficulty altho it was not open to spectators until evening. After some trouble in finding the secretary and manager's office we were informed that we were breaking one of the rules of the judging contest and should remain away from the building until the time set for the contest to begin. This regulation was instituted because the cattle which we were to judge were stabled in the basement; and it would have been taking an unfair advantage for some one, or two, teams to look over the stock and get their show records for, when it came to placing the animals, those teams would not be showing their ability to judge but rather would be merely mouthing some other judge's opinion.

We left the building after getting our passes for the next day and remained at the hotel all the afternoon. We met some men who were interested in the show, from other states, and passed the afternoon visiting with them. After dinner we took a long walk to see what we could of the city; but more important than sight-seeing, we walked to make ourselves sleepy so we could get a good night's rest.

The next morning we were at our place of business sharply at eight o'clock. Some of the other teams were there ahead of us and the rest came soon after our arrival. The management was not quite ready for us, so each contestant had an opportunity to size up his opponents, which everyone did. This embarrassing position did not last long because the fellows began to introduce themselves to each other. The next half or three quarters of an hour was spent in visiting. Each fellow seemed in good spirits and game for the problem which lay before him.

About nine thirty, Mr. B. H. Rawl, head of the Dairy Division of the Department of Agriculture at Wash-



R. L. WILLIAMS

T. E. ELDER

R. E. DEUEL

The 1909 Judging Team

ington, called the teams together and read the regulations of the contest, after which he gave a little talk on the purpose and objects for which we had gathered in that city. He expressed the desire that everyone live up to the spirit for which the contest was instituted for he said, "It is better to lose in honesty than to win by default."

When Mr. Rawl had finished speaking the contestants were divided into four squads with no two men of the same team in the same squad. This arrangement gave no chance to do team work. Each squad was put in charge of a referee who kept the time, watched each contestant to see that he did not converse with anyone and answered the questions that arose.

As we entered the judging ring we were given two cards, a white one and a red one. The white card was used for memorandum notes which we kept until we appeared before the judge. The red card was for the placing of the animals and was taken up by the referee when time was called. Fifteen minutes were allowed us in which to make our judgment. The first two or three minutes were used in moving the animals after which we were at liberty to handle them and to take such notes as we desired.

Time was called very promptly. It was considered a breach to retain the cards or attempt to do any writing after the fifteen minutes were up. We were led immediately to a side room to give our reasons to the judge for placing the animals as we did. The placing counted 50% and the reasons 50%. This made it not only necessary to place the animals correctly but to see correctly and to tell what we saw. For example, if an animal had a fault and the contestant forgot to mention it in his reasons, altho he had placed the animal correctly, he would be marked down considerably.

There was quite a difference in the judges. Some would not keep their eye on us, while others would try to look us out of countenance, some would ask questions if we did not make our opinion exactly clear to them. Three minutes were allowed for the speech before the judge. This was plenty of time if we did not have plenty of material to talk about, or had the feeling that the judge did not agree with us; but, if we were talking about a ring in which the animals were quite different and the judge seemed to approve of what we said, the time passed very quickly.

The judging lasted until six thirty in the evening, which made the day

quite long considering the nervous strain we were under, but when it was over everyone seemed to be in about as good spirits as they were in the morning. We joked about the mistakes and congratulated one another on cases of good judgment.

The next morning we were awakened by the *elder* member of the team, who had obtained a morning paper containing the results of the contest, and who rushed into our room exclaiming, "We won second place!" It is hardly necessary to say that in less than a second all eyes were on the paper trying to find out how it happened. We were delighted to find the name of the New York State College of Agriculture so near the top of the list; yet the regret was expressed that we did not nose out the winner instead of being nosed out, for the scores of the first three teams were all within fifty points of each other. A closeness which can be best understood by the knowledge that a perfect score was 2100.

The question might arise, does it pay? Is it worth while for different colleges and the Chief of the U. S. Dairy Department, to go to the time and expense that is necessary to carry out such an affair?

The exact opinion of the Chief cannot be stated but the mere fact that he has conducted and intends to continue conducting the contests is proof that there is something to be derived from it. The Department is not looking for unprofitable work and the Chief is not going to expose himself to criticism for managing a useless enterprise.

As far as the colleges are concerned, if they stand for the development of the students, and there is no doubt that they do, an affirmative answer is the only one that can be given to the question, "Is it worth while to hold such a contest?"

In the first place the contest makes an object to work for. It is true that each college has its advanced stock judging course in which the student is supposed to get some idea of judging; but the keen competition to "make" the team, which this contest makes possible, brings home to each fellow a direct application of this knowledge.

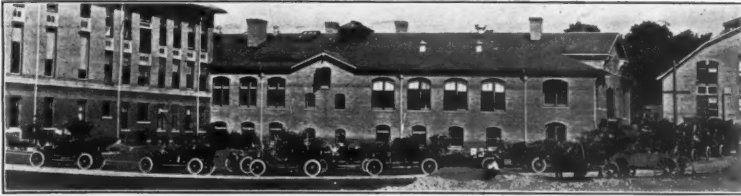
Again, such a contest tends to uniform ideas about judging. Too often is it said, that such a placing is only a matter of opinion; and that it is a contest of judging the judge rather than the animals. This can be overcome to a considerable extent by the gathering together of the Professors of Animal Husbandry, the practical stock judges, the breeders, and the students who hope to become one of these three. Next the training of the student in identifying and remembering animals in detail is wonderfully developed. It trains the mind to be quick and accurate in decision.

An assembling of students of the various colleges at such an affair cannot help but make them better acquainted with the conditions in those different colleges. There is one thing that the contest has done for the College of Agriculture at Cornell; it has shown that there is a Department of Animal Husbandry here that can rank with the best.

There would be something decidedly wrong with the students in our College, if they did not make a good showing; because we live in a state whose dairies are more extensive than those in any other in the Union. We have been shown every kindness by the breeders in the state. And we have as head of the Animal Husbandry Department a man who is second to no one in this particular branch.

VISIT OF HONORARY COMMERCIAL COMMISSIONERS OF JAPAN TO ITHACA

By S. G. Judd, '11



PART OF THE LINE OF AUTOMOBILES WHICH BROUGHT THE COMMISSION
"UP THE HILL."

THE Honorary Commercial Commissioners of Japan are distinguished Japanese bankers, educators, merchants, financiers and expert tradesmen who are visiting this country as guests of various Chambers of Commerce of the cities of the Pacific Coast and also of a large proportion of the cities of the United States. They are making an extended tour of the United States, from September 3 to December 7, investigating practically every large branch of American industry, commerce and administration. Among the very numerous subjects of inquiry on their schedule are found, Banking, Agriculture, Education, Municipal Administration, Machinery, American Tariff, Transportation.

The Commission is headed by Baron Eiichi Shibusawa who is considered Japan's foremost business man and who, in addition to great work in commercial lines, has held several important positions under the Japanese Government. "It was Baron Shibusawa that made the new Japan in business; it is proper to call him the father of business men in Japan." (Yone Nagouchi in the *Independent* for October 7, 1909).

Accompanying the Japanese Commissioners are several American Trade Experts, delegated from the Associated Chambers of Commerce of the Pacific Coast; from the United States

Government, and from Buffalo and several of the larger western cities.

The Honorary Commercial Commissioners of Japan and the American Trade Experts came to Ithaca from Rochester in their "Million Dollar Special," arriving at Ithaca on Friday morning, October 8th. They were received at the station by a committee representing both Town and Gown and headed by Hon. Randolph Horton, Mayor of the city of Ithaca. Associated with the Mayor on the reception committee were the former mayors of Ithaca; the former presidents of the village of Ithaca; Charles C. Howell, President of the Business Men's Association and the three former presidents of this organization; the Japanese Club of Cornell, Shiro Sano, President; representatives from Cornell University, namely: Dean Charles H. Hull, Prof. Henry H. Wing, Prof. Charles H. Tuck, Prof. Ernest Merritt, Emmons L. Williams, Treasurer, Prof. Otham C. Guerlac, Prof. Henry N. Ogden, Prof. Arthur W. Browne, Prof. Martin W. Sampson, Roscoe G. Edlund, President's Secretary. Paul S. Mills-paugh acted as Marshall. A few of the Commissioners did not come to Ithaca the party having divided at Rochester.

The committee had provided about thirty automobiles which carried the distinguished visitors up to the New

York State College of Agriculture. The party assembled in the auditorium of this college about ten o'clock where, in the absence of President Schurman, Dean Hull welcomed the Commission to Cornell University. Baron Shibusawa responded.

After this exchange of courtesies the guests were shown through the numerous departments of the College of Agriculture. The members who were especially investigating Agriculture and Horticulture (agricultural implements, provisions, food products) were Professor T. Minami, T. Watase, H. Sakaguchi, A. Shito, M. Ito, K. Kamino and K. Taki. Assistants: W. H. Manss, Agriculture; C. H. Hyde, Food Products.

The party re-entered the automobiles and were taken on a tour of inspection of the other colleges of the University and of the campus in general.

While in the chemistry laboratories some experiments were performed for their entertainment. At 11 o'clock Baron Kanda addressed a small assemblage of students in Barnes Hall on, "Technical Education in Japan."

Luncheon was served in Sage College dining rooms. Hon. Andrew D. White addressed this assemblage and Baron Shibusawa again responded in behalf of his countrymen.

After luncheon the University turned over the entertainment of the visitors to the townspeople. Again the automobiles came into play and the Commissioners were shown all the city, visiting the Salt Works and other principal industries of the "Biggest Little City" as well as inspecting the Ithaca High School.

As a fitting climax to a successful day came the banquet given in the Ithaca Hotel at 7:00 P. M. by the Business Men's Association. Mayor Horton acted as toastmaster. The room was very profusely and appropriately decorated, Japanese decorations being predominant.

Never has a more celebrated foreign delegation visited this Country and the United States is gaining a reputation for national hospitality by each city outdoing itself to entertain these visitors as was done in Ithaca by the combined and harmonious efforts of Town and Gown.



AS THEY LEFT US.

WHAT HAS BEEN ACCOMPLISHED DURING THE SUMMER OF 1909 IN THE COLLEGE OF AGRICULTURE

EDITOR'S NOTE.—The COUNTRYMAN regrets that this article could not be run complete in the October issue: difficulty of postal communication combined with brevity of time prevented it. We take pleasure in publishing the following addition in this issue, however. While the portion devoted to the Department of Farm Practice does not deal exclusively with the summer work in that department, we feel justified in including a short history of what has been accomplished in the recent years, in order to give our readers a comprehensive knowledge of what that department had to do during the summer of 1909.

Plant Physiology. In this department, with interests along both instructional and investigational lines, the policy relative to summer work has been to give each member of the staff such time and freedom for

special research or writing as the experimental work would permit. During the past summer the work has necessarily been confined to experimental studies along fundamental lines in the laboratory.

Some of the topics with which most satisfactory progress has been made are as follows: The Fixation of Free Nitrogen by Soil-forming and Wood-destroying Fungi, Stimulation and Toxic Action, Stimulation and the Keeping Qualities of Flowers, and The Effects of Partial Shade Upon Other Environmental Habitat Factors.

A number of graduate students were also in residence and occupied with laboratory problems. Among those taking major work the following names and titles may be given: C. H. Benedict, University of Cincinnati, A Comparative Study of the Water-Conducting Tissues in Old and Young Plants; O. Butler, formerly of the California Experiment Station, The Production of Gum Diseases in Deciduous Fruits; M. M. McCool, The Antitoxic Action of Mineral Nutrients and other Bases; and F. J. Pritchard, The Histology of Regenerative Buds in Flax. Several graduate students in minor work also took advantage of the favorable season for plant study and microscopic work.

Farm Crops. A variety test of corn. During Farmers' Week last winter a corn congress was held. One feature of this corn congress was a corn show, giving displays of corn from all parts of the state. From these displays Professor White selected fifty varieties of corn and made accurate measurements and descriptions. One ear of each variety was preserved, the remaining ears being shelled and used for seed. This seed was distributed among the following institutions: The State School of Agriculture at Canton; The State School of Agriculture at Alfred; The State Agricultural and Industrial School at Industry; The State Hospital at Willard; The County Farm at Delhi; The New York State College of Agriculture at Ithaca. The varieties of corn have been under test during the past summer at all these places and all have been visited and careful notes taken.

The object of this work has been to determine whether or not some of

the superior varieties of corn already grown in our state could not be more widely disseminated. At the present time some of the results are encouraging, but as the work is not yet complete it is too early to draw conclusions. However, it is proposed to publish a report of the experiment during the winter.

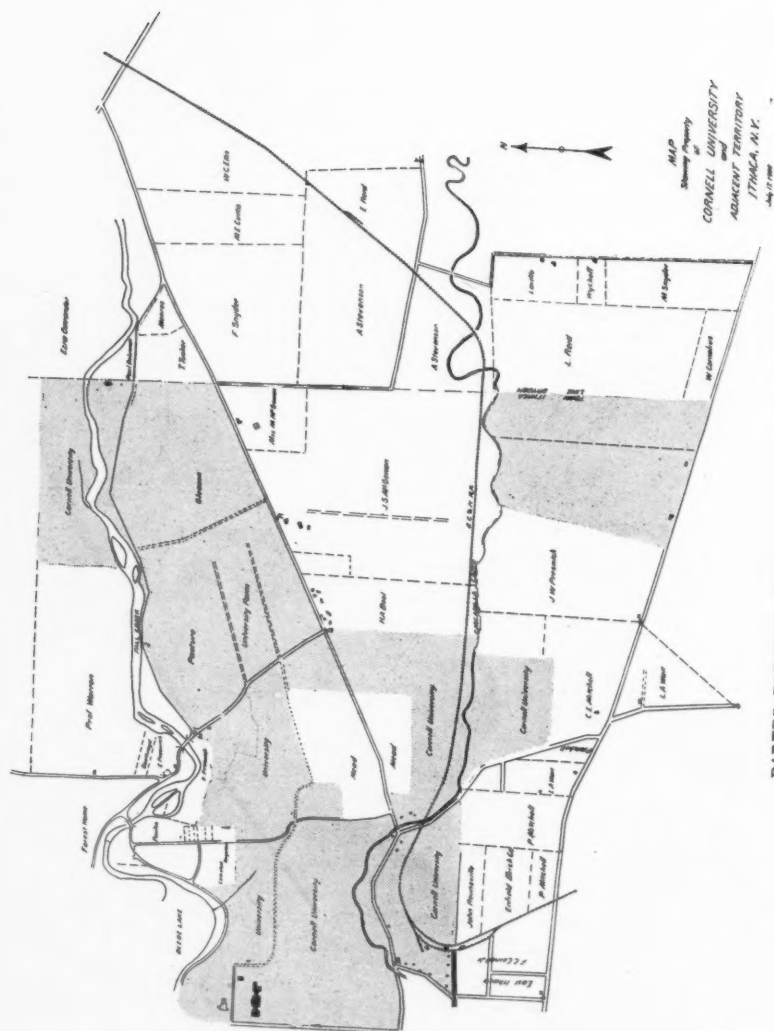
Department of Experimental Plant Breeding. The summer work carried on by members of the plant-breeding department has been extensive.

Dr. Webber and Dr. Clark have been kept busy taking many notes on the plants of the Timothy Breeding Experiment, which has been in progress for many years. The different biotypes which have been isolated show remarkable powers of transmission from self-fertilized seed. Many thousands of new plants have been started for another year's work.

Dr. Webber's first generation pepper, carnation and verbena hybrids are presenting many interesting studies of Mendelian inheritance of unit characters.

Dr. Gilbert has spent many weeks among his 6,000 second generation hybrid tomato plants. These came into fruitage this summer and have furnished new light upon Mendelian segregation. He has also been busy with his study of the inheritance of color of Phlox and Solpiglossis hybrids. Many new combinations of colors have appeared which are, as yet, difficult to explain.

One of the most important lines of work which this department is now carrying on is the induction of variation. This general line of investigation is in charge of Dr. Love. He has measured many thousands of plants and plotted curves showing their variation when grown under different environments. Mr. Humbert has made a statistical study of the induced variation, by means of chemical injection, in the plants of a large field of *Silene noctiflora*. The field in general, was very uniform, but there appeared a few very divergent plants; it is hoped that these few plants will show a tendency



DARKER PORTIONS REPRESENT UNIVERSITY FARMS.

to transmit these divergent characters another year.

Oat and wheat breeding has had its share of attention. Dr. Love has carried along the pure-line work with wheat, while Mr. Humbert and Mr. Waldron have worked with oats. The latter experiments of which have been in progress longer are beginning to show valuable scientific as well as practical results. One of the experiments has been a study of the effect of large and small kernels upon the resulting crop.

Mr. Waldron has also prepared a translation of Johannson's "Eiblichkeit" and a portion of Van Rumker's work. The former will soon appear in printed form.

The University Farms. In no one department has the growth of this college been so clearly shown as in the increase in the farm area under its control. The original Home Farm was only a little over forty-three acres. To this, however, the Preswick farm of over fifty acres was soon added. The next important extension took place in 1902 when the Mitchell and Bahrend farms, comprising an area of about one hundred and forty acres, were purchased. Last year and this spring have brought the greatest increase to the farm area; the Smith farm of nearly one hundred acres, the Blair farm of one hundred and fifteen acres, and the Cornell farm of fifty-six acres being all given in charge of this college, and forming the most important addition to the contiguous territory which is now being called the New Home Farm. In addition to this, five acres were purchased from the Meade farm for the new barns. During the winter two farms south of Cascadilla Creek were purchased, comprising a territory of approximately one hundred acres. This detached land has been named the Southeast Farm.

All these purchases have placed a total of six hundred acres under the care of this college, but of this, forty-five acres have been set aside for

experimental purposes for the different departments, and sixty acres have been given to the Horticultural department. In addition to this, all the land from the college buildings to the first Forest Home Road will eventually be given up for campus purposes. Much of the remaining land is also unfit for cultivation because of its steepness, and can only be used as permanent pasture. Deducting all these areas, there are one hundred and five acres of land surrounding the new barns which can be placed under a regular cropping rotation.

It is to this area that the Department of Animal Husbandry looks for much of its winter forage. In this department there are now over one hundred and seventy head of live stock, and with the occupation of the new barns these will be increased considerably, so that the problem of raising feed is one of no small importance. Prof. Stone has found that corn is the most economical crop that can be raised, and for this reason and because of the nature of the soil the following rotation has been adapted on this land: Corn, corn, oats, wheat, clover. The farms have been divided into five equal areas, and, at least for several years to come, this will be the cropping scheme.

The Southeast Farm has not been included in this scheme for two reasons: the land was badly run down and two or three years of special treatment will be needed to increase its fertility; also some of the soil is particularly adapted to potatoes, and on this land a different rotation will be worked out with potatoes for the main crop.

The college cannot be too closely in touch with actual farm work, and the work on this land will not only supply excellent material for experiments in the economic handling of cattle, but will also serve as a means of keeping the college in closer touch with the farms of the surrounding region.

The Cornell Countryman

N. R. PEET, Editor

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W. G. STEPHENSON		
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C. P. RIBSAM	- - -	Assistant Manager

NOVEMBER, 1909

The Marketing Problem

We announced in our October issue that we hoped to be able to devote some succeeding issue to co-operation, in the limited sense that we devoted the October issue to irrigation. Perhaps it would have been better had we used the word marketing in place of co-operation, for the latter is but one phase of the former, as a ditch system is but one phase of irrigation.

We present this November issue then as our Marketing Number. Our readers will find some articles on Co-operation, they will also find one on the commission merchant. We have desired to publish the latter because we believe that with all the co-operation agitation that is prevalent, a misunderstanding has arisen concerning the commission merchant. Our belief that there is such a misunderstanding was strengthened as we read some time ago an article which appeared in the September *Everybody's*. The thought came as we

read that article—"Are all commission merchants rascals?"

It has been our personal experience that there are to be found among commission merchants men of as high ideals, integrity, thorough business ability, and as courteous gentlemen as one would ask to meet. There may be some scoundrels in the business as there are in every business, but it will be noted by the careful observer that these men do not last, they are caught just as certainly and just as soon as other scoundrels.

The relative merits of marketing by co-operation or through commission merchants do not rest upon the integrity of the one and the deception of the other. The strongholds of co-operation are the uniformity in grades of immense bulks of produce; the widespread knowledge among the consumers of what they are buying and the surety of their getting the same grade of product they had previously procured under that same name or brand; their consequent satisfaction and willingness to pay a higher price; and the consequent added returns to the producer.

Against these strongholds the commission merchant arrays for the benefit of the public his personal and business reputation, *his* uniformity of grading (which must of necessity be confined to relatively small quantities) and *his* guarantee of satisfaction. Any added price he can secure by virtue of these items he is entitled to possess. We must not find fault with him for capitalizing his reputation.

The question of co-operation versus the commission merchant is not one of honesty, as we would be led to believe by the vicious attack on the commission merchant to which we have previously referred. It is a

question of who shall supply the guarantee to the consumer and speculate on the returns of that assurance. We confess that the future outlook for a vast commission industry looks dubious; the farmer is becoming interested in the markets of the world and with this interest is coming a natural desire to secure some of the profits made there.

But for dishonest commission men we would agitate more rigid governmental inspection and law enforcement, and not the balm of co-operation.

An Attitude Toward Our College

How many of our readers heard what Governor Hughes said about our College in the address he delivered at the Tompkins County Fair on September 22? Time and events are moving so fast, we are living so much in the present, that anything which happened two months ago seems worse than ancient, and useless to recall.

But nevertheless, we are going to brave the stamp of antiquity and the impression of being out of material to quote from that speech because we believe that our readers should know how the state executive stands in a matter which is coming to be very vital to the future policy of our College.

"The State of New York has reason to be proud of the provision it has made for agricultural education in connection with Cornell University. The state has reason to be proud of the progress made by that school under the intelligent management with which it has been favored. I want to say that the State of New York is pledged to the entire success of that school, and we want no limitation put on its progress. I wish to see the agri-

cultural interests so developed that no farmer's boy will come to the Agricultural College and be told there is no room for him."

Some day, and one not very far in the future, this College of Agriculture has got to be duplicated. There can be no doubt about it. Figures are usually stupid things but we can present a few of them which will tell the story of a growth as immense as it has been sudden, and which bids fair to be remarkable in its stability, because it is backed by a force which will not be denied, and which is characterized by some admirable staying qualities.

Last year the College of Agriculture at Cornell University had enrolled at this time 255 regular students, 110 special students, and during the winter gave instruction to 364 short course men, a total of 729 students. This year it has already enrolled 397 regulars and 111 specials, an increase of 39%. With this same rate of increase among the short course men, and (judging from the number of applications already received) this is a very conservative estimate, we will have 506 more students here on November 30, a total of 1014 or a total increase of 285 over last year's total. And the College was designed with a capacity for 800 students.

With the awakening of agricultural interests throughout the country, the interest of influential business men in affairs agricultural, the idealization of rural life, the attractions to a young man of a life on the farm; have we any reason to believe that this imperative demand for an agricultural college education is going to continue? and that this rate of increase of students in the Agricultural College is going to keep up? Only those who have ex-

perienced the enthusiasm, the spirit and the interest, which is a part of the Agricultural College and which is due primarily to the nature of the work, can realize how insistent that demand is and how certain it is to continue.

It is to the attention of these people, the present and former students of the College of Agriculture, that we wish to recall the words of Governor Hughes. The country people of the state of New York, the young men and young women who are anxiously clamoring for admittance to this College of Agriculture, and the several parts of agricultural interests throughout this state will be looking to you for help. They will be expecting you to exert the influence you possess and by means of which you can bring to bear such a pressure that the Legislature will grant the funds that are to be asked for this winter.

It augurs well that our state executive is of the opinion his words would lead us to believe he is. With such a sentiment at the focus of legislative power, and the not-to-be-deemed demand which is coming from the rural districts (and the cities as well), and which is but a portion of the appeal which is making itself heard all over the country, this college ought to be doubled in three years. The time to commence work is *now*. Let each one add to the movement all the impetus of which he is capable.

The Thirteenth Census

It is interesting to note the prominence of agriculture in the plans for the Thirteenth Census, which 65,000 enumerators will start to take on April 15, 1910. It was shown by the census of 1900 that the United States is primarily an agricultural

country, the total value of farm property being more than twice as large as the capital invested in manufactures.

This fact has led Congress to provide for, besides the census of population, the collection of more detailed information regarding the three principle productive industries, viz: agriculture, manufacture, and mines and quarries. The census of agriculture is generally regarded as the of greatest importance to the country as compared with all other subjects covered by the census law. It is taken primarily for the benefit of the farmer, though he may not see directly how it will help him. But upon this census will depend most of the statistical work and investigation of practical problems which the federal government, experiment stations, and agricultural colleges will carry on for the next five years.

The farmer can help by preparing an accurate account of his farm operations for the year ending December 31, 1909 and by taking a careful inventory of all his farm property on April 15, 1910. By doing this conscientiously the farmer will do his part toward the computation of immense quantities of data which will be of inestimable value to himself and the public at large.

It is a source of pride to the students in the College of Agriculture at Cornell and to *THE COUNTRYMAN* to know that the Professor of Farm Management, and first editor of this paper, was appointed by Director Durand of the Bureau of the Census, as one of a committee of four to prepare and formulate the various schedules provided for by Section 8 of the act authorizing the Thirteenth Census.

Inter-Agricultural College Activities

The recent judging contest at Milwaukee marks the second installment of the first inter-college activity among the agricultural colleges. It has proven highly successful in making the fellows from the different colleges acquainted; in creating a more accurate impression of the different schools; and in boosting agriculture to a more uniform science. What are we going to do about the question of inter-agricultural debating? We cannot see how such an activity could help but increase a fellowship between the colleges, bring agricultural students closer together, and teach them organization and leadership—two characteristics in which the farmer is usually very decidedly lacking.

Would this tend toward an estrangement of this Agricultural College from the Cornell University? We do not think so. The chance to debate on agricultural subjects, in which the agricultural students are, as a class, intensely interested, would naturally bring out candidates who would never think of going near a debating club. By developing capable material in this way, such an idea might even be the salvation of our University debating teams.

We are looking forward toward the formation of a debating league with other adjacent Agricultural Colleges. There are many questions that need discussing.

The Judging Team

"Veni, vidi, vici." Not quite but almost so, was that the case with our Judging Team, which went to Milwaukee on October 14. To secure first place on one breed, for one member of the team to

make a perfect score in one class, (and the only perfect score to be made by-the-way), for another member to secure third place in individual score and for the team to secure second place in the total score, is a series of achievements of which the team can be proud, and for which we are proud of the team. The COUNTRYMAN wishes to take this opportunity to congratulate them upon their measure of success.

It must be a source of great satisfaction to them, as it is to us (the student body), to note the advancement over last year's record, and to know that ours has not been a fluctuating history in this line but rather one of steady rise. We are looking for first place next year.

Our Business Manager

It is a source of deep regret that we have to announce the resignation of Mr. R. J. Shepard, '10, as Business Manager of THE COUNTRYMAN. With the beginning of the college year, Mr. Shepard accepted a position in the Extension Department of this College: to be asked to do which was in itself no small honor. He did not see how he could give THE COUNTRYMAN the time and attention it requires, and at the same time do what was expected of him in his new capacity. It is on account of this that his resignation was accepted.

We wish to take this opportunity to thank him for the faithful work he did last summer; judging by the results accomplished, he must have kept "everlastingly at it."

We have to announce at this time the election of Mr. T. Bradlee, '11, of Lewiston, N. Y. to the position of Business Manager of THE COUNTRYMAN.

GENERAL AGRICULTURAL NEWS

A farm of fifty acres at Bacon, Delaware, has just been purchased by the Pennsylvania Railroad with a view of establishing an experiment station to exploit the advantages of the Maryland, Delaware and Virginia Peninsula for the benefit of the farmers of that section.

Two such farms have been operated by the Long Island Railroad for the past four years with a considerable degree of success. This policy is to be followed by the Pennsylvania Railroad. The farm purchased is "worked out" but was chosen for that very reason in order that it might be demonstrated how the fertility of the soil can be restored and the farm worked profitably. It is proposed to start new fruits as well as to improve the varieties now under cultivation. Forage crops of various kinds will be sown, including alfalfa, and timothy. Green houses will be built in order that experiments may be made in growing plants under glass.

H. S. Lippincott, a graduate of the Agricultural College at Cornell University has been appointed as superintendent. Mr. Lippincott has for many years taken an interest in experimental work, has done much practical farming at his home in Burlington County, N. J., and in North Carolina.

Added interest in scientific farming is one result that the Pennsylvania's agricultural campaign is trying to achieve; other results are wider markets for the crops grown along its lines, more people living along its route, greater prosperity among the farmers, and—for the railroad itself—an increased freight and passenger traffic.

* * *

The wholesale price of milk in the 26-cent freight zone was advanced to $3\frac{3}{4}$ cents per quart, or \$1.81 per 40-quart can delivered in New York, at a special meeting of the Consolidated Milk Exchange held in that city.

What the actual winter rate will be affords a considerable amount of

speculation for the prices quoted are what have been the average winter prices. Competition for milk on the part of manufacturers of condensed products is keen, and prices of butter and cheese are high and likely to go higher. The time seems to be ripe for a boom in the dairy industry.

At the Illinois State Fair, the exhibit of dairy products this year was the largest ever made at this fair, being an increase of more than 100% over last year's exhibits. Indications from investigations of these exhibits seem to prove that the Illinois farmers are using the hand separators more and more, and are making their butter at home.

The State Food Commission has a very instructive exhibit in the dairy building, illustrating the work of the Commission, exhibiting pure and impure foods on the market, including those analyzed and found to be illegally sold. The object of this exhibit is to stimulate public interest and force the production of high quality goods.

Some very interesting and instructive mottoes adorned the wall, such as "Does your local Board of Health test the milk supply? If not, why not?" "The dishonest food manufacturers hate publicity." "Study the labels on food packages." "In the breath of the people lies the strength of the nation." "The pure food question is one of the greatest questions before the American public. It concerns you." "Tell your dealer you want no flies in your food."

Another interesting exhibit was made of diseased lungs and liver from a tuberculous cow.

* * *

From the *Practical Dairyman* we learn that W. J. Frazer of the Illinois Experiment Station spent the summer in Europe studying the condition of the dairy industry in various countries and drawing conclusions for American dairymen. The results of his studies are embodied in a bulletin

which the department is about to publish.

Prof. Frazer finds conditions abroad radically different from those prevailing in this country, and concludes that there must be something wrong with the American methods. He finds European dairymen superior in four essential points:

In the uniformly high quality of the dairy cattle, economical feeding, and the care taken of the animals, and of the products.

It seems that we must go to Denmark, Scotland, and Holland for lessons to improve our methods. In Holland, dairying is a grass and hay proposition, a small amount of oil-cake in addition to the roughage being sufficient to maintain the large milk flow of the splendid black and white animals. In Scotland the excellence of the producing Ayrshires and the high quality of the cheese made on the farms are points of interest to American dairymen. In Denmark dairying is the chief occupation of the people. There the industry is conducted in a more intensive manner than in any other country in the world. Butter is made in co-operative creameries.

The cow-testing and co-operative features of Danish dairying are being introduced into this country and promise to cause a revolution in the industry. With a more careful study of individual cows will come a demand for better bred animals. In breeding this country is in no way behind the Europeans. To be sure, we are still importing breeding stock and shall continue to do so immediately, but in intelligence, enterprise, and ability to produce a practical, useful animal the American breeder leads the world.

* * *

An interesting experiment to determine the keeping quality of various products, especially those of the dairy as well as fish, meat, etc., is being planned by the German Agricultural Department. The products are to be sent on a trial trip to Australia and return, after which they will be exhibited at the 24th German Agri-

cultural Exhibition which will take place July 2-7, 1910. A large number of premiums will be awarded to such products, as have stood the test most successfully.

* * *

The Swedish strike of laborers in the dairy industry has finally been settled. The work in the dairy and the city milk supplies were fortunately not seriously affected.

CAMPUS NOTES

On Thursday evening, October 7th, was held the first Agricultural Assembly of the year. The attendance was all that could be desired, the auditorium being filled. The full attendance of freshmen was especially noticeable and bodes well for the spirit of the class of 1913. The first feature of the evening was the singing of Alma Mater, led by the Glee, and it was a feature indeed, for the Glee Club, headed by Mr. Rogers filled the platform. Miss Nye rendered some piano selections which were most enthusiastically received. R. J. Shepard, president of the Agricultural Association, in a few well chosen words spoke of Dean Bailey's absence on sabbatical leave and then presented Acting Dean, Dr. H. J. Webber. Dr. Webber welcomed both old and new students in his characteristic hearty manner which made everyone feel that they were surely welcome and asked them to stand back of the faculty this year as they had always done before. The Dean's figures on this year's registration showed 381 regulars and 104 specials, an increase of 128 students over last year. In addition there is almost a certainty that the attendance of last year's winter courses will be practically doubled. After these statements the Dean made a strong plea that everyone interested in this college do their utmost to influence public opinion so that our equipment should be increased by an additional appropriation at the next meeting of the legislature. "Hold out the helping hand to first year men," said Dr. Webber, "and I think in this respect

the Agricultural Colleges of the country stand foremost." In summing up Dean Webber said, "Have confidence in your own ability and then go ahead and work, believing in what your own eyes see." A social hour followed the Evening Song and everyone seemed to act on President Shepard's advice to get acquainted. Refreshments were served by the members of Frigga Fylgæ.

* * *

On Monday evening, October 4th, a "Get Wise" meeting was held in the auditorium for the first year men of the College of Agriculture. A. R. Mann, secretary of the college, spoke on the Agricultural Association; H. C. Young, '10, captain of the varsity track team, on University Athletics; H. N. Humphrey, '11, on College Athletics; F. S. Jacoby, '10, on the Poultry Association; V. J. Frost, '10, on the Attitude of the Freshman; R. D. Anthony, '10, on the Lazy Club and the Round Up Club; G. P. Scoville, '10, on the Honor System; T. J. McInerney, '10, on the Mandolin Club; H. N. Kutschbach, '10, on the Ag. Tax and an inspiring talk in behalf of the Glee Club by Miss Alice G. McCloskey of the Nature-Study Department. After the program the freshmen held their class election, resulting as follows: E. S. Bates, president; R. J. Lawrence, vice-president; G. C. Van Hoesen, treasurer, and Miss E. C. Conlin, secretary. At this election President Shepard of the Agricultural Association worked a novel and effective scheme. The names of the nominees were written on the black board and then the candidates stood under their names, thus giving their fellow freshmen a chance to see who they were.

* * *

Immediately after the Assembly, October 7th, the three upper classes of the college met separately and elected members to the Honor System Committee. The seniors elected were W. W. Fisk, F. S. Jacoby and R. D. Anthony; Juniors, A. L. Thompson and I. C. Jagger and from the sophomore class, O. W. Smith. The mem-

ber from the freshman class will be appointed later by the Honor System Committee.

* * *

R. J. Shepard, '10, of the Extension Department spoke in New York City, October 5th, before the National Federation of Jewish Farmers. The meeting was held in the building of the Educational Alliance Club.

* * *

James L. Cowles, Secretary-Treasurer of The Postal Progress League, addressed the students of the Agricultural College in the auditorium on afternoon of October 4th on behalf of the Bennet Postal Bill, United States House of Representatives Resolution 1076, providing for the improvement of the Free Rural Service. It is claimed that the enactment into law of this measure would save scores of millions of dollars a year to the Rural Public and to the Post Office Department.

* * *

A tennis court was constructed this summer a little north east of the Animal Husbandry building. This court is for the use of the girls in the College of Agriculture.

* * *

Hobart Cone Young, '10, a senior in this College, was recently elected captain of the varsity track team. Mr. Young is also captain of the varsity cross country team.

* * *

In the October issue we ran a list of "Faculty Promotions," which was anything but complete. This issue we intend to add all other promotions and also the new members of the faculty. Howard W. Riley promoted to assistant Professor of Farm Mechanics; Cyrus R. Crosby promoted to Assistant Professor of Entomological Investigations; Harold E. Ross promoted to Assistant Professor of Dairy Industry; Donald Reddick promoted to Assistant Professor of Plant Pathology; Harry H. Love appointed Assistant Professor of Plant Breeding Investigations; Arthur W. Gilbert appointed Assistant Professor of Plant Breeding; Albert R. Mann appointed Secretary

to the College of Agriculture. Of the new members: Robert Matheson, Assistant in Entomology; Anna C. Stryke, Assistant in Entomology; Lee B. Cook, Assistant in Dairy Industry; M. W. Evans, Assistant in Farm Mechanics.

* * *

M. P. Jones, '08, instructor in extension teaching last year who was seriously ill at Chautaugua last summer is now at his home in Deerfield, N. Y., and we are exceedingly glad to note his continued improvement. He writes cheerfully, "Every day I get stronger. Spend most of the time outdoors and find the days are all too short."

* * *

The total registration of the Agricultural College up to October 12th was 500 students, including both regulars and specials but not graduate or winter course students. Total registration at end of first term last year was 365.

* * *

The first meeting of the Poultry Association was held Thursday evening, October 14th. The association started in well with an attendance of about forty students at its first meeting. The first number on the program was a selection by a quartet from Agricultural Glee Club, followed by an address by Professor C. A. Rogers, "Some impressions from the meeting of the International Association of Poultry Instructors and Investigators," held recently at Guelph, Ontario. Professor Rice gave an enthusiastic talk on the "Aims and Work of the Poultry Association," and told the reasons why students interested in poultry work should affiliate themselves with this association. A social hour followed the program, refreshments having been provided. Altogether it was voted a most successful gathering.

* * *

The Department of Entomology is constructing a "Roof Garden" to be used as a place for breeding aquatic insects. This structure is largely made of glass having a type of con-

struction very similar to that of a greenhouse. It is located on the roof of the auditorium and practically on a level with the floor of the Entomology Department. This "Roof Garden" is divided into four rooms: Wet Room, Moist Room, Dry Room, Hibernating Room. The Wet Room will be used to breed insects that live in the water and will include a tank for collecting and storing rain water; the Moist Room is for breeding insects that live in damp situations but not wholly in the water; in the Dry Room will be bred other kinds of insects such as caterpillar larvae, beetle larvae, saw fly larvae, etc.; the Hibernating Room is intended for wintering the insects and is so arranged that it can be kept at outdoor temperature. This building will, to a certain extent, be used for class purposes.

* * *

A photographer, working in connection with the United States Department of Agriculture, visited the College recently and took moving pictures of the poultry students while engaged in various phases of the poultry work. These pictures will be valuable for use in College and Extension work. This use of moving pictures in agricultural work is a new idea and we will endeavor to publish an article on this subject in some future issue.

* * *

The Department of Plant Pathology announces the foundation of another co-operative Industrial Fellowship. This is established by the C. W. Stuart & Co., nurserymen, of Newark, N. Y. for the investigation of the diseases of nursery stock, particularly the Fire Blight. This Fellowship will go to Mr. V. B. Stewart, Wabash, '09, and a candidate for the Ph.D. in the department of Plant Pathology. The full announcement of the purpose and terms of this fellowship will appear in the next issue of the COUNTRYMAN.

* * *

A prize of fifty dollars was offered last spring through the Department of Farm Management for the best

plan of management for the Smith farm, located near Trumansburg.

This prize was competed for by undergraduates in the farm management classes and was won by K. C. Livermore, '09. The judges of the contest were Professors Stone, Wing and Wilson.

* * *

The E. I. Du Pont de Nemours Co., Prize Essays. The E. I. du Pont de Nemours Powder Co. of Wilmington, Delaware, have decided to offer prizes for essays on "The Use of Explosives in Blasting Stumps, Boulders, Breaking up Hard-pan and in Tree-planting," the awards to be made amounting to \$100 for first prize and \$50 for second prize, the competition being open to the several agricultural colleges. While various agricultural colleges are expected to write essays in connection with this competition, it is to be clearly understood that the two prizes,—\$100 for first prize, \$50 for second prize,—are not to be awarded for the best papers from all the colleges, but that these two prizes apply to each college entering the contest. Whether the contest will be open to the students of the New York State College of Agriculture depends in a measure on the number of students competing. Therefore, all students of the College of Agriculture desiring to compete by the preparation of essays on this subject are kindly requested to write letters to the Director of such intention by November 1, 1909. The company offering the prize reserves the right to decide finally what papers are entitled to the prizes, but state that they will have the essays passed on by fair and competent judges. It is also understood that all papers submitted in this contest will be the property of the E. I. du Pont de Nemours Powder Co., and that they will have the right to use any or all parts of the essays as they see fit. The E. I. du Pont de Nemours Powder Co. have furnished a skeleton outline giving an idea of the way in which the competitive papers should be written. This outline shows the headings and sub-headings in the

order in which they desire to have the papers or essays constructed. In giving these headings and sub-headings, however, they state that the outline is only to be followed in a general way, the essay covering the points therein given, or other points that seem desirable by the authors. All essays to be considered for the prizes must be submitted to the E. I. du Pont de Nemours Powder Co. not later than October 1, 1910, and it is expected that the award of prizes will be made December 31, 1910.

The New York State College of Agriculture in considering the idea of allowing students of the College to compete for these prizes have understood from the E. I. du Pont de Nemours Powder Co. that it is not their expectation that students will conduct experimental work with explosives and base their essays on any experiments definitely planned and carried out for this purpose. It is simply expected that the students shall obtain information by reading, by discussion with farmers and friends, in fact, gathering information wherever they can find it for presentation in their essays. Copies of this outline are posted on the bulletin boards of the College or can be seen by application to some member of the COUNTRYMAN Board.

FORMER STUDENTS

'88, B. S. A.—Leonard Pearson, Dean of the faculty of Veterinary Medicine in the University of Pennsylvania and State Veterinarian of Pennsylvania, died at the Log Cabin Inn, Spruce Brook, Newfoundland, where he was staying in an effort to regain his health which had been failing for the past two years.

Dr. Pearson, who was born in Evansville, Ind., on August 17th, 1868, entered Cornell in 1884, taking the course in Agriculture and graduated in 1888 with the degree B.S. He spent the two following years in studying veterinary medicine in the University of Pennsylvania where he

received the degree V.M.D. in 1890. Upon graduation, he went to Berlin and spent a year there studying in the bacteriological laboratory of Robert Koch. In 1891, Dr. Pearson returned to this country and was made Professor of Veterinary Medicine in the University of Pennsylvania and Dean of the Department in 1897. He was appointed state veterinarian of Pennsylvania in 1895 and in 1896 was elected Secretary of the State

and veterinary medicine. Besides satisfying all these demands on his time and attention, he was able to contribute many valuable articles to various medical and agricultural journals as well as many other scientific publications. Dr. Pearson distinguished himself not only by his great work as an investigator but also because of his practical ideas and executive ability. Dr. Pearson's death is deeply regretted not alone by the students and faculty of two universities but by all who are acquainted with his work in the field of science.



LEONARD PEARSON.

Live Stock Sanitary Board, both of which positions he held at the time of his death.

After he finished his college course, Dr. Pearson was identified with many scientific societies and sanitary movements. He was a member of the American Public Health Association, the boards of health of Pennsylvania and of Philadelphia and at one time was president of the American Veterinary Medical Society and of the Pennsylvania State Veterinary Association. On several occasions he was a delegate to international congresses on hygiene, tuberculosis,

'01, B. S. A. '05, M. S. A.—Ralph W. Curtis was made assistant superintendent of the Arnold Arboretum, Harvard University, Jamaica Plains, Mass., recently. His permanent address is 891 Center St., Jamaica Plain. This position brings him in close touch with Mr. Sargent the Director, an opportunity which Curtis knows well how to improve. Plans are being considered for enlarging the immense building, increasing the field collections and emphasizing the value of the arboretum.

'04.—Mr. and Mrs. Walter I. Thompson visited Ithaca and the college, October 14th to 16th. "Tommy" is in partnership with his father in the milk business at Fairview Farm. He continues to make good in the same old way.

'06, Special. Louis S. Aronovici died on October 5th in a sanitarium at Edgewater, Colorado, where he had gone in an effort to regain his health. During the time he was in college, Aronovici had made up a large number of the entrance requirements and would have entered the regular course in 1908 had he not been compelled to give up work on account of tuberculosis. He was interested in student activities having been organizer and leader of the Mandolin Club of the College. The last year he was in college, he held the position of student assistant in the Department

of Entomology. He was loved by all those who got to know him intimately.

'08, Ph.D.—G. D. Schaefer is in Lansing, Michigan, investigating, under the Adam's act, the effect of insecticides on insects.

'08, B. S. A.—Miss Ethel Gorvan is teaching Entomology at Hampton Institute, Hampton, Va.

'08, W. P.—T. B. Roberts has purchased the Highland Farms, located at Norway, Maine. One of the farms is devoted to dairying and the other to poultry. The poultry farm has at present a laying stock of over 1300 birds, 1150 of which are pullets.

'08, W. A.—D. B. Knight is working on the Charlton Industrial School Farm at Ballston Lake, New York.

'08, W. A.—Charles McLean is running his own farm at Arena, N. Y., Dairying is his specialty.

'08, W. A.—J. C. Maclay is engaged in general farming and apple growing at North Rose, N. Y.

'08, W. A.—Hubert Craft has charge of a dairy at Smithville Flats with a herd of pure bred Guernseys.

'08, W. A.—E. R. Coye is at Naples, N. Y., engaged in general farming, with the growing of small fruits as a side issue.

'08, W. A.—H. N. Wells, president of the 1908 class in General Agriculture, is practicing general farming on his farm at Portageville, N. Y.

'08, W. A.—L. G. Gardeppe is at South Glens Falls, N. Y. where he is growing small fruits and vegetables, also is keeping poultry and bees.

'08, W. A.—Frank J. Rhodes is engaged in general farming at Albion, N. Y.

'08, W. A.—Chas. L. Selter has a farm at Three Mile Bay with poultry as his specialty.

'08, W. A.—Otis Thompson is at Ogdensburg, N. Y., where he is making a specialty of dairying.

'08, W. A.—Marshall H. Chappell is helping his father on their farm at Perry, N. Y.

'08, W. A.—Warren E. Van Zandt is working on a stock farm at Cazenovia, N. Y.

'08, W. A.—Irving S. Warren is farming at Baiting Hollow, N. Y., and raises several acres of cauliflower and potatoes there every year.

'08,—John C. White is very successfully engaged in raising potatoes on his farm at Sagopanack, L. I.

'09.—Lee Barlow, since the death of his father, recently, has taken charge of the home farm where he conducts a dairy and general farm.

'08, W. A.—James G. K. Duer is now located at "Brookdale Farm," Brewster, N. Y. Mr. Duer, who is secretary of the Stone Agricultural Club, '08, wishes us to announce that the committee in charge of printing the class history hopes to have the copies ready for distribution at the reunion next Farmer's Week. This is a good undertaking and all members should send in at once any information that will aid the committee in their work.

'08, W. A.—'09, Hort.—Harold Seeley Wilson is in charge of the horticultural department on a farm at Monroe, N. Y.

'08, W. D.—Allen P. Houghton is in partnership with his father, making a specialty of dairying and poultry.

'08.—Mead Forbes is managing his mother's farm at Frewsburg, N. Y. where he is making a specialty of dairying and Hampshire sheep.

'08, W. A.—'09, Hort.—W. J. Tous-saint has a position with the Mahwah Co. at Mahwah, N. J.



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(Courtesy of Mr. Burnap)

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THE CORNELL COUNTRYMAN

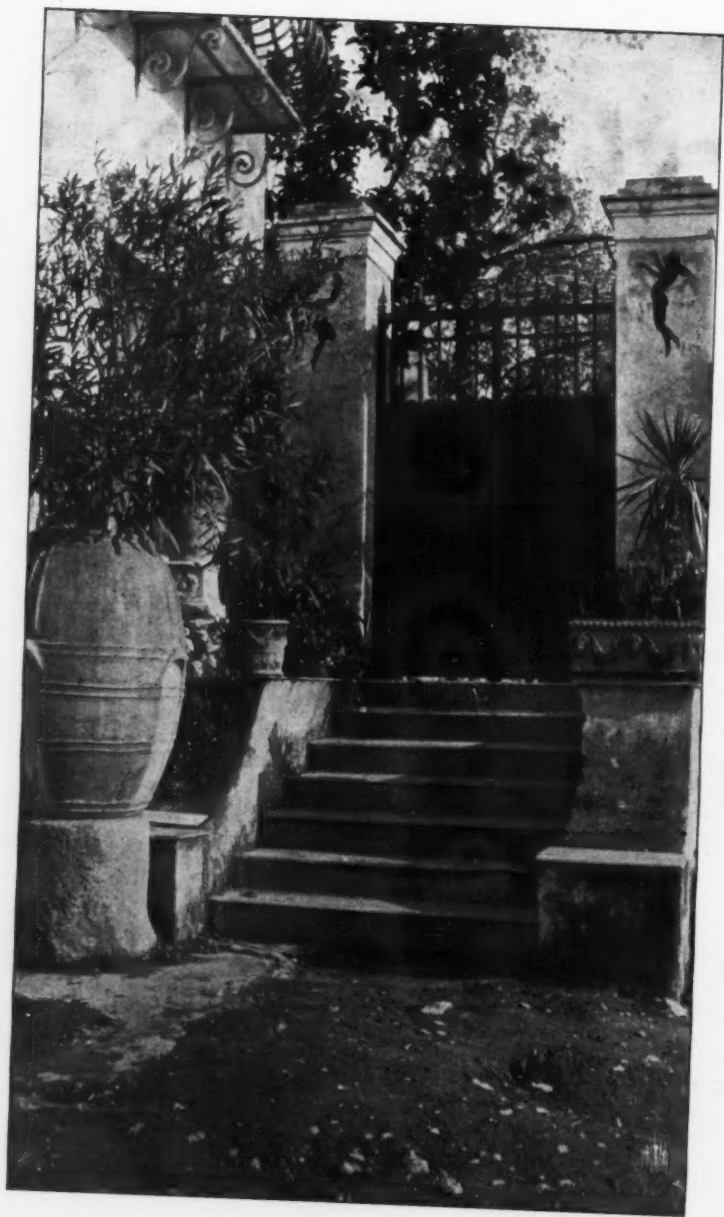
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Garden in Capri

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